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PTO/SB/05 (11-00)

Approved for use through 10/31/2002 OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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**UTILITY
PATENT APPLICATION
TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	CEC-170/SD-2231
First Inventor	Yue Yun Wang
Title	See 1 in Addendum
Express Mail Label No.	EF 227 530 285 US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 31]
(preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross Reference to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 7]
5. Oath or Declaration [Total Pages 4]
 - a. ☒ unexecuted
Newly executed (original or copy)
 - b. ☐ Copy from a prior application (37 CFR 1.63 (d))
(for continuation/divisional with Box 18 completed)
 - i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s)
named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☐ Application Data Sheet. See 37 CFR 1.76

ADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
 - a. ☐ Computer Readable Form (CRF)
 - b. Specification Sequence Listing on:
 - i. ☐ CD-ROM or CD-R (2 copies); or
 - ii. ☐ paper
 - c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement of Attorney (when there is an assignee) ☒ Power of Attorney
11. ☐ English Translation Document (if applicable)
12. ☒ Information Disclosure Statement (IDS)/PTO-1449 23 Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ Request and Certification under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☒ Other: Check #199594 for \$1,298.00

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP)

of prior application No. _____/_____

Prior application information:

Examiner _____

Group Art Unit _____

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.**19. CORRESPONDENCE ADDRESS**☐ Customer Number or Bar Code Label

[Redacted Customer Number]

or ☒ Correspondence address belowName Jeffrey A. MichaelBaker & DanielsAddress 300 N. Meridian St., Suite 2700City Indianapolis State IN Zip Code 46204Country USA Telephone 317-237-0300 Fax 317-237-1000Name (Print/Type) Jeffrey A. Michael Registration No. (Attorney/Agent) 37,394Signature Jeffrey A. Michael Date January 31, 2001

Burden Hour Statement: This form is estimated to take 0.5 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231

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**FEE TRANSMITTAL
for FY 2001**

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$)**1,298.00****Complete if Known**

Application Number	
Filing Date	Herewith
First Named Inventor	Yue Yun Wang
Examiner Name	
Group Art Unit	
Attorney Docket No.	CEC-170/SD-2231

METHOD OF PAYMENT

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to
- Deposit Account Number **02-0390**
- Deposit Account Name **Baker & Daniels**
- ☐ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17
- ☐ Applicant claims small entity status. See 37 CFR 1.27
2. ☒ **Payment Enclosed:**
- ☒ Check ☐ Credit card ☐ Money Order ☐ Other

FEE CALCULATION**1. BASIC FILING FEE**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
101 710	201 355	Utility filing fee	710
106 320	206 160	Design filing fee	
107 490	207 245	Plant filing fee	
108 710	208 355	Reissue filing fee	
114 150	214 75	Provisional filing fee	

SUBTOTAL (1) (\$)**710****2. EXTRA CLAIM FEES**

Total Claims	Extra Claims	Fee from below	Fee Paid
26	-20** = 6	18	108
9	-3** = 6	80	480
		270	0

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
103 18	203 9	Claims in excess of 20
102 80	202 40	Independent claims in excess of 3
104 270	204 135	Multiple dependent claim, if not paid
109 80	209 40	** Reissue independent claims over original patent
110 18	210 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$)**1,298**

**or number previously paid, if greater, For Reissues, see above

FEE CALCULATION (continued)

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105 130	205 65	Surcharge - late filing fee or oath	
127 50	227 25	Surcharge - late provisional filing fee or cover sheet	
139 130	139 130	Non-English specification	
147 2,520	147 2,520	For filing a request for <i>ex parte</i> reexamination	
112 920*	112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840*	113 1,840*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for reply within first month	
116 390	216 195	Extension for reply within second month	
117 890	217 445	Extension for reply within third month	
118 1,390	218 695	Extension for reply within fourth month	
128 1,890	228 945	Extension for reply within fifth month	
119 310	219 155	Notice of Appeal	
120 310	220 155	Filing a brief in support of an appeal	
121 270	221 135	Request for oral hearing	
138 1,510	138 1,510	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive - unavoidable	
141 1,240	241 620	Petition to revive - unintentional	
142 1,240	242 620	Utility issue fee (or reissue)	
143 440	243 220	Design issue fee	
144 600	244 300	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Processing fee under 37 CFR 1.17(q)	
126 180	126 180	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties)	
146 710	246 355	Filing a submission after final rejection (37 CFR § 1.129(a))	
149 710	249 355	For each additional invention to be examined (37 CFR § 1.129(b))	
179 710	279 355	Request for Continued Examination (RCE)	
169 900	169 900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$)**1,298****SUBMITTED BY**

Name (Print/Type)	Jeffrey A. Michael	Registration No. (Attorney/Agent)	37,394	Complete (if applicable)	Telephone	(317) 237-0300
Signature	<i>Jeffrey A. Michael</i>	Date	January 31, 2001			

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

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Figure 1 is a phylogenetic tree showing the relationships between 16 isolates. The tree is rooted at the bottom and branches upwards. The isolates are labeled with numbers 1 through 16. The tree shows several clusters, with some isolates having high bootstrap values (e.g., 100, 99, 98, 97, 96, 95, 94, 93, 92, 91, 90, 89, 88, 87, 86, 85, 84, 83, 82, 81, 80, 79, 78, 77, 76, 75, 74, 73, 72, 71, 70, 69, 68, 67, 66, 65, 64, 63, 62, 61, 60, 59, 58, 57, 56, 55, 54, 53, 52, 51, 50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1). The tree is a dendrogram showing the hierarchical clustering of the 16 isolates based on their 16S rDNA sequences.

- [illegible]

Date: January 31, 2001

Attorney Docket No.: CEC-170/SD-2231

BOX PATENT APPLICATION
Commissioner for Patents
Washington, D.C. 20231

Re: Application for United States Letters Patent
Applicants: Yue Yun Wang, Xiaoqiu Li, Mark R. Stepper, Chang Yang

Title of Invention: SYSTEM FOR DIAGNOSING EGR VALVE, ACTUATOR
AND SENSOR RELATED FAILURE CONDITIONS

Sir:

Forwarded herewith is the above-identified application, consisting of the following:

Specification (21 Pages)
Claims (9 Pages)
Abstract of the Disclosure X
Drawings (7 sheets)
Declaration Executed X Unexecuted
Information Disclosure Statement
Form PTO/SB/08A (2 pgs.)
23 references
Patent Application Fee Determination Record
Fee Transmittal
Utility Patent Application Transmittal
Check #199594 for \$1,298.00

The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 02-0390, BAKER & DANIELS. A duplicate copy of this sheet is enclosed.

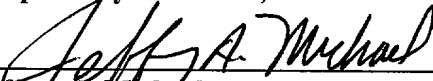
☒ Any additional filing fees required under 37 CFR 1.16.

The Commissioner is hereby authorized to charge payment of the following fees during the pendency of this application or credit any overpayment to Deposit Account No. 02-0390, BAKER & DANIELS. A duplicate copy of this letter is enclosed.

☒ Any patent application processing fees under 37 CFR 1.17.

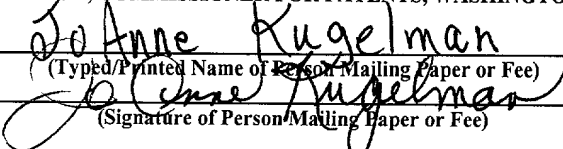
☒ Any filing fees under 37 CFR 1.16 for presentation of extra claims.

Respectfully submitted,


Jeffrey A. Michael
Registration No. 37,394
Attorney for Applicants

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TELEPHONE: 317-237-0300
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"EXPRESS MAIL" MAILING LABEL NUMBER EF 227 530 285 US
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I HEREBY CERTIFY THAT THIS PAPER OR FEE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE "EXPRESS MAIL POST OFFICE TO ADDRESSEE" SERVICE UNDER 37 CFR 1.10 ON THE DATE INDICATED ABOVE AND IS ADDRESSED TO: BOX PATENT APPLICATION, COMMISSIONER FOR PATENTS, WASHINGTON, D.C. 20231.


(Typed/Printed Name of Person Mailing Paper or Fee)
(Signature of Person Mailing Paper or Fee)